

Automation solution  
**Modicon M340 & CANopen**  
The *winning* association



## *Simply Smart!*

Leveraging  
**ingenuity**  
and intelligence  
for **ease of use**

## Modicon M340 & CANopen *Simple, compact and upgradable*

Dedicated to complex installations and distributed machines, the Modicon M340 programmable controller, Altivar 31 variable speed drive, XPS MC safety module, Magelis XBT GT operator terminal, Lexium 05 servodrive, Advantys FTB distributed I/Os and OTB automation islands are already well known for their ability to offer you gains in compactness, simplicity and competitiveness.

Today their association provides a real solution guaranteeing you installation simplicity, compactness and speed, with faultless operation of the assembly thanks to a complete offer and perfect software integration.

- 1 Power supply  
**Phaseo**  
ABL 8...
- 2 Safety module  
**Preventa**  
XPS MC...
- 3 Programmable controller  
**Automate Modicon M340**  
BMX...
- 4 Graphic operator terminal  
**Magelis**  
XBT GT...
- 5 Variable speed drive  
**Lexium 05**  
LXM 05...
- 6 Variable speed drive  
**Altivar 31**  
ATV31...
- 7 Starter-controller  
**TeSys U**  
LU...
- 8 IP20 distributed I/Os  
**Advantys OTB**  
OTB 1CO...
- 9 IP67 I/O module  
**Advantys FTB**  
FTB 1CN...
- 10 Ultrasonic sensor  
**Osisonic**  
XX...
- 11 Proximity switch  
**Osiprox**  
XS...
- 12 Photoelectric sensor  
**Osiris**  
XU...



# CANopen

Communication performance and security

## 2 Preventa XPS MC safety module

- Conforming to level SIL3 of standard EN/IEC 61508
- Module 16 or 32 safety inputs, 10 safety outputs (transistor and relay)
- Compactness: integrated CANopen communication
- Functions: safety device monitoring (emergency stop, safety guard, two-hand control, light barrier, validation device)

## 3 Modicon M340 programmable controller

- Compactness: digital modules 16 to 64 I/O; mixed module 16 I + 16 O
- Compactness and flexibility: processors with two integrated ports for CANopen, Ethernet or Modbus
- Functions: multifunction fast counting, low level and multi-range analogue modules

### CANopen infrastructure

- Choice: IP20 and IP67 wiring systems, with prefabricated cables
- User-friendly installation: CANopen graphic configuration in Unity Pro and equipment configuration screens on bus

## 4 Magelis XBT GT operator terminal

- Range of 3.8" to 15" screen graphic terminals
- Compactness: Ethernet or Modbus serial link integrated communication
- Productivity: single data entry for Unity Pro and Vijeo Designer
- Diagnostics: programmable controller alarm display

## 5 6 CANopen motion control

- ATV31/71 variable speed drives for asynchronous motors up to 500kW, with pre-programmed function blocks
- ATV61 specialised variant for pump and fan control motors up to 630kW
- Lexium 05 servodrives for servomotors 0.4 to 6kW
- Lexium 15 servodrives for servomotors 0.9 to 42.5kW
- Compact positioners for setting axes IclA IFA, IFE, IFS with integrated DC or stepper motor
- Motion control by pre-programmed function blocks, conforming to open PLC standard
- Osicoder rotary absolute encoder with resolution up to 8192 points per revolution

## 7 TeSys U starter controller

- Direct motor starter with function customisation
- Single and three-phase motor protection and control
- Monitoring: surveillance, alarm and history

## 8 Advantys OTB IP20 distributed I/Os

- CANopen interface module with integrated I/Os
- 12 x 24V DC inputs
- 2 x 24V DC 0.3 A transistor outputs + 6 relay outputs

## 9 IP67 monobloc I/O module

- Modules 16I; mixed modules: 8I+8O, 12I+4O; 16I/O configurable
- Environment adaptation: plastic or metal enclosure
- Integrated diagnostics: for module and for each channel
- Compatibility: with sensor and actuator offer using M12 connectors



#### Modicon M340 & Preventa XPS MC Advantages

##### ■ *Programmable controller directly linked with safety information*

Automatic access to states of safety inputs managed by the Preventa safety module connected on CANopen for diagnostics management.

#### Modicon M340 & ATV31 / Lexium 05 Advantages

##### ■ *Compactness and simplicity of installation*

Control of non-synchronised axis does not require an additional module in the programmable controller and movement management is by function block library to Open PLC standard.

##### ■ *Diagnostics with fault management at source*

The programmable controller timestamps and records speed drive faults with display on operator terminal.

##### ■ *Simplified maintenance*

The programmable controller stores speed drive configurations, executing automatic reconfiguration in case of standard exchange.

##### ■ *Choice of control solution*

ATV 31/61/71 drives for speed control, Lexium 05/15 for position control and IclA ranges for positioning.



#### Modicon M340 & FTB / OTB Advantages

##### ■ *Flexibility in distribution of programmable controller peripherals*

The CANopen field bus offers inputs/outputs distribution by Advantys OTB in enclosure or by Advantys FTB modules directly on the machine structure.

##### ■ *Services equivalent to modules in the programmable controller*

User-friendly installation, configuration and diagnostics by Advantys FTB modules in Unity Pro.





## Modicon M340 & Magelis XBT GT Advantages



### ■ Time saving installation

Data declared in Unity Pro can be reused without double entry in the Vijeo Designer control software..

### ■ Centralised fault display on Magelis terminal

The programmable controller timestamps and stores hardware and peripherals configuration information CANopen without need for additional programming.



## Application types

### ■ Industry

#### Food processing:

Bottling lines

#### Materials handling and transport:

Conveying, storage, mobile storage and retrieval

#### Metal and woodworking:

Bending machines, woodworking

#### Packaging:

Packing, drying and filling machines, palletizers, packaging machines

#### Other machines:

Assembly lines, printing machines, coffee pod packaging machines

### ■ Buildings/services

#### Industrial and technical buildings:

Electrical distribution sub-stations





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Design: [www.blueloft.fr](http://www.blueloft.fr)  
Photos: Schneider Electric  
Print:

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